II. *The ſtrange Effects of ſome effervеſcent Mixtures; in a Letter from Dr.* James Mounſey, *Phyſician of the* Ruſſian *Army, and F.R.S. to Mr.* Henry Baker, *F.R.S. Communicated by Mr.* Baker.

Moſcow, Sept. 20th, 1756.

Read Jan. 20, 1757. MR. Butler, a paper-ſtainer, trying to make ſome diſcoveries for the better fixing of colours, was put in great danger of his life by the following experiments:

Having put into one gallipot a quarter of an ounce of verdegris, and into another pot two leaves of falſe-gold leaf, to each he poured about a ſpoonful of aqua-fortis. They began immediately to ferment, eſpecially the gold-leaf. He was very aſſiduous in ſtirring them, to make the ſolution perfect. Having nothing elſe at hand, he did this with a pair of ſmall ſciſſars, at arm's length, carefully turning away his face, to prevent the fumes from entering his lungs. He was called away, about other buſineſs, before he had quite ended his proceſs; and ſoon after waſhed and ſhifted himſelf: but had ſcarce finiſhed before he felt a burning pain in the ring-finger of his right hand, which he imputed to his having inadvertently touched the aqua-fortis. This increaſed every moment, and affected the whole hand with burning pain and ſwelling, which very ſoon ſubſided: but then it flew into the left hand, and, a few minutes afterwards, into the inſides of his legs, as if ſcalding water had

been thrown on them. His ſtockings being immediately pulled off, there appeared a great many red ſpots, as large as ſix-pences, ſomething raiſed above the ſkin, and all covered with very ſmall bliſters.

In about two hours after the accident, I firſt ſaw him: he was very uneaſy, complaining of pain, and great anxiety, at the pit of the ſtomach, as if a burning hot iron was laid on it: ſo he expreſſed himſelf. His pulſe was regular, but ſlower and weaker than natural: he had a nauſea, and complained of a very coppery ſmell and taſte. I ordered ſome alcaline volatile medicines, and to drink ſmall ſack-whey. He vomited once, and had four or five ſtools, and then his ſtomach grew eaſy. But the ſcene ſoon began again with lancing pain in the left eye. He continued the ſame medicines, drank plentifully of the whey, and was kept in a breathing ſweat, by which he found ſome eaſe at night: but whenever the ſweating leſſened, the burning pains returned in broad flakes, changing from one part of the body to the other; ſometimes with ſhootings in his eye, and ſometimes along the penis, but he had no heat of urine. His pulſe continued regular, but weak; and in ſeveral places of his body ſuch kind of ſpots ſtruck out as thoſe on his legs.

Monday, the third day, in the morning, after ſleeping well, his pulſe was ſomewhat raiſed, and he continued eaſy till about eleven o' clock, when the burning pains returned, ſhooting from place to place; but always ſo ſuperficial, that he could not diſtinguiſh whether it was in or under the ſkin. Rubbing the part affected with one's hand gave eaſe: but when the ſweating went off, and the burnings and ſhoot-

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ings became inſufferable, I always put him into a bath of hot water, with ſome wood aſhes, kept ready in the room; which gave him great relief. This afternoon he felt violent burning pain in his great toes, and ſometimes in his left hand, with ſhootings up to the ſhoulder. Once he cried out, in great pain, that his ſhoulder was burſt; for he felt ſomething fly out with a ſort of exploſion: but, examining the part, I found nothing particular. He obſerved, when the flaky burnings began, they were as if they kindled from a point, and flaſhed like lightning, as he termed it. He was very often tormented with ſuch pains on the pit of the ſtomach; and this evening had ſhootings thro' the back, with a pain in the belly. He complained of a ſtrong ſulphurous ſmell, which, he ſaid, was like to ſuffocate him; tho' his breathing ſeemed eaſy, and his lungs no way affected. In the night he was ſeized with great pain about the heart, and cried out violently, that his heart was on fire: but after taking a doſe of nervous medicines, and being put into the bath, he was ſoon freed from this, and paſſed the reſt of the night tolerably well. At the time of ſuch violent attacks the pulſe continued regular, but ſtill ſlower and ſofter than uſual.

Tueſday. He complained moſt of his toes, and now and then burning pains in the forehead.

Wedneſday. This whole day it continued moſt in the toes of the left foot; but in the evening the pain on the ſtomach returned, which lanced to the left ſide, with dartings inwardly. He became ſo uneaſy and reſtleſs, that I was obliged to add ſome opium to the other medicines; which anſwered very well.

Thurſday.

Thurſday. The pains kept moſt in the toes of the left foot.

Friday. Nothing particular, except his feeling, with ſharp pain, a ſpark (as he called it) fly out of his right cheek, in the ſame way, he ſaid, as that, which burſt on his ſhoulder, but much leſs. He perceived no pain in that part before this; nor any thing after, beſides a ſoreneſs, which laſted for ſome days. Hitherto he had been kept in a continual ſweat: his appetite was greater than his allowance; his digeſtion good; and his reſt indifferent. From this time he was not attacked by any violent ſymptoms; and could be quiet, tho' he did not ſweat.

On Sunday he began to get out of bed; but was often ſeized with glowing pains, ſuddenly affecting different parts of the body; which ſeldom continued an hour in one part, but ſhifted from place to place: theſe he was troubled with, in a leſs degree, even long after he went abroad.

By care and watchfulneſs the violence of the ſymptoms were kept under; and, by the uſe of antidotes for poiſons of the nature of what he received this from, the diſeaſe was overcome, and the patient recovered his perfect health and ſtrength.